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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, TANH Q

ART UNIT PAPER NUMBER

2182

DATE MAILED: 07/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/777,003	BAKER ET AL.	
	Examiner	Art Unit	
	Tanh Q. Nguyen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The amendment filed 05/09/02 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: a cache memory directly coupled to said first host processor system, said second local processor and said data transfer switch (recited in the added claim 37).

The original disclosure teaches the first host processor system being connected to the PCI/AGP buses (page 15, lines 7-14), the PCI/AGP interface [130, FIG. 1A], the data transfer switch [112, FIG. 1A] before being connected to the cache memory [110, FIG. 1A], hence does not teach the cache memory being directly coupled to the first host processor system.

Applicant is required to cancel the new matter in the reply to this Office Action.

Per MPEP 2163.06, applicant should also specifically point out support in the original disclosure for the new or amended claims instead of merely stating that no new matter has been added.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 37 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, the original disclosure teaches the first host processor system being connected to the PCI/AGP buses (page 15, lines 7-14), the PCI/AGP interface [130, FIG. 1A], the data transfer switch [112, FIG. 1A] before being connected to the cache memory [110, FIG. 1A], hence does not teach the cache memory being directly coupled to the first host processor system.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reader et al. (U. S. Pat. No. 6,192,073) in view of Kusters (U. S. Pat. No. 5,519,112).

6. As per claim 19, **Reader et al.** (Reader) teaches an integrated multimedia system [100, FIG. 1] having a multimedia processor [110, FIG.1/FIG.2] disposed in an integrated circuit, said system comprising:

a first host processor system coupled to said multimedia processor (col. 3, lines 25-26);

a second local processor [210, FIG.2] disposed within said multimedia processor for controlling the operation of said multimedia processor (col. 5, lines 1-3);

a data transfer switch [230, FIG. 2] disposed within said multimedia processor and coupled to said second processor for transferring data to various modules [220, 242, 243, 245, 248, 252, 255, 258, 290, FIG.2] of said multimedia processor;

a data streamer [245, FIG. 2 and FIG. 3] coupled to said data transfer switch, and configured to schedule simultaneous data transfers among a plurality of modules disposed within said multimedia processor in accordance with corresponding channel allocations (col. 4, lines 34-49; 8 channels, FIG. 52);

an interface unit [FBUS INTERFACE BLOCK, ASIC GLUE LOGIC AND DMA CONTROLLER, FIG. 52; MULTIMEDIA LIBRARY MODULE, FIG. 7] coupled to said data streamer [WDM Streaming Media, FIG. 7] having a plurality of I/O device driver units [MULTIMEDIA LIBRARY MODULE (MPEG, MODEM, AUDIO,...), FIG. 7]; and

a plurality of external I/O devices [KS0122, KS0119, AD1843, FIGs. 6 and 52] coupled to said multimedia processor.

Reader does not teach a multiplexer coupled to the interface for providing access between a selected number of I/O device driver units to external I/O devices via output pins.

Kusters teaches a method that uses a multiplexer [30, FIG. 1] coupled to a computer system [8, FIG.1] for providing access between a selected number of I/O device driver units [38a,...,38n, FIG.1] and external I/O devices [32a,...,32n] via output pins (parallel I/O port, Abstract).

Kusters further teaches the above method not being limited to any particular computer, single chip processor or apparatus; and also teaches a specialized apparatus to perform the methods above (col. 8, lines 4-14). Kusters, therefore, teaches a multiplexer being usable with a single chip processor; such multiplexer being either on the same chip as the processor, or external to the processor.

Kusters, therefore, teaches the claimed invention except for the particulars of the single chip processor, and except for a first host processor system coupled to the single chip processor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to coupled Kusters' multiplexer to Reader's multimedia processor interface unit (such multiplexer being either internally or externally disposed on the multimedia processor) for the purpose of providing access between a selected number of I/O device driver units among a plurality of I/O device driver units to external devices via a limited number of output pins, such combination also enabling multiple devices to be used simultaneously for a same set of pins.

7. As per claims 20-25 and 27, Kusters teaches external I/O devices being controlled by a corresponding one of the I/O device driver units (Abstract: lines 11-12).

Reader teaches one of the external devices being a video decoder [Video A/D: Video Out, FIGs. 4, 5] and one the external devices being a video encoder [Video A/D: Video In, FIGs. 4, 5], with NTSC encoder/decoder being well known in the art at the time the invention was made for video encoders and decoders;

one of the external devices being a modem [MSP, FIG. 7]; with a transport channel interface being well known in the art at the time the invention was made for modems; and

three dimensional graphic signal [DirectX (3D), FIG. 7]; and an audio CODEC [114, FIG. 1].

8. As per claim 26, the combination above does not teach one of the external devices being an ISDN interface. It would have been obvious to one of ordinary skill in the art at the time the invention was made that ISDN represents one of the design choices for an external I/O device for the purpose of communicating data between the multimedia processor and other communications media.

9. As per claims 28-36, see the rejections to claims 19-27 above.

10. Claims 19-36 are alternatively rejected under 35 U.S.C. 103(a) as being

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unpatentable over **Reader et al. (U. S. Pat. No. 6,192,073)** in view of **Kim (U. S. Pat. No. 5,926,187)**. The rejections to claims 19-36 above are incorporated by reference.

11. As per claim 19, Kim teaches a multiplexer [515, FIG. 5] coupled to the interface unit [251, FIG. 1] for providing access between a selected number of I/O device driver units (col. 6, line 30-col. 7, line 8) to external I/O devices [110, 130, 150, FIG. 1] via output pins (col. 6, lines 10-29).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Kim and Reader because they are both directed to the same multimedia processor, with each of the references claiming a different aspect of the same multimedia processor, and because Kim's aforementioned teachings would allow the multiplexer to implement protocol for accessing different devices.

12. As per claims 20-36, Kim further teaches external I/O devices being controlled by a corresponding one of said I/O device driver units (col. 6, line 30-col. 7, line 8); one of the external devices being a NTSC decoder [col. 3, lines 7-8; 110, FIG. 1] and one the external devices being a NTSC encoder [col. 3, lines 7-8, 130, FIG. 1]; one of the external devices being an audio CODEC [150, FIG.1]; modem communications (col. 3, line 11) and modem software to demodulate data (col. 3, lines 45-47).

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 19-36 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-18 of copending Application No. 09/172,286, now U.S. Patent No. 6,347,344. Although the conflicting claims are not identical, they are not patentably distinct from each other

because the limitations of the claims in the instant application are fully disclosed in claims 1-18 of the copending application.

Response to Arguments

15. Applicant's arguments filed 05/09/02 have been fully considered but they are not persuasive.

16. Applicant argued that there is no teaching or suggestion in the cited prior art, either alone or in combination, which teaches a data streamer coupled to the data transfer switch and configured to schedule simultaneous data transfers among a plurality of modules disposed within the multimedia processor in accordance with corresponding channel allocations.

Specifically, applicant argued that Reader teaches a bitstream processor (data streamer) not configured to schedule simultaneous data transfers among a plurality of modules within the multimedia processor; that instead, Reader teaches the bitstream processor performing encoding/decoding processing on video data; and that the WDM streaming media software does not describe or maintain the ability to schedule simultaneous data transfers among a plurality of modules within the multimedia processor in accordance with corresponding channel allocations.

The above arguments are misplaced because they are directed to Reader's bitstream processor performing encoding/decoding processing on video data, which is not relied upon by the examiner in the rejection. Applicant's arguments were not

directed to the teachings of a data streamer [245, FIG. 2 and FIG. 3] coupled to said data transfer switch, and configured to schedule simultaneous data transfers among a plurality of modules disposed within said multimedia processor in accordance with corresponding channel allocations (col. 4, lines 34-49; 8 channels, FIG. 52).

Further, by merely stating that the WDM streaming media software does not describe or maintain the ability to schedule simultaneous data transfers among a plurality of modules within the multimedia processor in accordance with corresponding channel allocations, applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

17. Applicant argued that there is no teaching or suggestion in the cited prior art, either alone or in combination, which teaches a cache memory directly coupled to the first host processor system, the second local processor and the data transfer switch.

These arguments only apply to claim 37 since the limitations were not recited in any other pending claims, and were fully addressed in paragraphs 1-4 above as being new matter, 112 objections and 112 rejections.

18. Applicant argued that the CPUs in the multimedia processor in applicant's invention are directly coupled to the cache memory rather than passing through a data

transfer switch, and that Reader's CPUs must transmit data across the transfer switch in order to access the cache.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the CPUs in the multimedia processor in applicant's invention being directly coupled to the cache memory rather than passing through a data transfer switch) are not recited in the rejected claims (claims 19-36). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

19. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanh Quang Nguyen whose telephone number is (703) 305-0138, and whose e-mail address is tanh.nguyen36@uspto.gov. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee, can be reached on (703) 305-9717. The fax phone number intended for entry for the organization where this application or proceeding is assigned is (703) 746-7238 for after final, (703) 746-7239 for formal communications, (703) 746-7240 for Customer Service, or (703) 746-5672 for informal or draft communications.

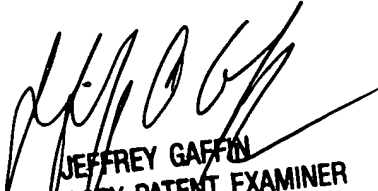
Any inquiry of a general nature relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Mail responses to this action should be sent to:

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Hand-delivered responses should be brought to:

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(Receptionist).


JEFFREY GAFFIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

TQN

July 9, 2002